

Attachment 1

Science Advisory Board Staff Office; Request for Nominations for Additional Expertise for the Consultation on EPA's Strategy on Suspended and Bedded Sediments

[Federal Register: July 30, 2003 (Volume 68, Number 146)]
[Notices]
[Page 44758-44760]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr30jy03-49]

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ENVIRONMENTAL PROTECTION AGENCY
[FRL-7536-6]

Science Advisory Board Staff Office; Request for Nominations for
Additional Expertise for the Consultation on EPA's Strategy on
Suspended and Bedded Sediments

AGENCY: Environmental Protection Agency (EPA).
ACTION: Notice.

SUMMARY: The EPA Science Advisory Board (SAB) Staff Office is
requesting nominations to add additional expertise to the SAB
Ecological Processes and Effects Committee for a panel to provide a
consultation to EPA on Suspended and Bedded Sediments (SABS).

DATES: Nominations should be submitted by August 20, 2003.

ADDRESSES: Nominations should be submitted in electronic format through
the Form for Nominating Individuals to Panels of the EPA Science
Advisory Board provided on the SAB Web site, www.epa.gov/sab. To be
considered, all nominations must include the information required on
that form. Anyone who is unable to submit nominations via this form may
contact Dr. L. Joseph Bachman, Designated Federal Officer as indicated
below.

FOR FURTHER INFORMATION CONTACT: Any member of the public wishing
further information regarding this Request for Nomination may contact
Dr. L. Joseph Bachman, Designated Federal Officer (DFO), via telephone/
voice mail at (202) 564-3968; via e-mail at bachman.joseph@epa.gov; or
at U.S. EPA Science Advisory Board (1400A), 1200 Pennsylvania Ave NW.,
Washington DC 20460. General information about the SAB can be found in
the SAB web site at <http://www.epa.gov/sab>.

SUPPLEMENTARY INFORMATION: Summary: The U.S. Environmental Protection

Agency (EPA) Science Advisory Board

[[Page 44759]]

Staff Office is requesting nominations to add expertise to the Science Advisory Board's Ecological Processes and Effects Committee to form a Panel on Suspended and Bedded Sediments (SABS). The EPA Office of Water is preparing a strategy for developing water quality criteria guidance for SABS, which will examine and evaluate the most promising scientific approaches for doing this. The Panel on Suspended and Bedded Sediments will provide a consultation on the Strategy, reporting through the EPA Science Advisory Board to the Agency.

The SAB was established by 42 U.S.C. 4365 to provide independent scientific and technical advice, consultation, and recommendations to the EPA Administrator on the technical basis for Agency positions and regulations. The SAB Staff Office provides technical and administrative support to the SAB in conducting its mission.

The project the Panel on Suspended and Bedded Sediments will undertake is expected to be a one-day consultation. Over that period, the Panel will comply with the provisions of FACA and all appropriate SAB procedural policies, including the SAB process for panel formation described in the ``Overview of the Panel Formation Process at the Environmental Protection Agency Science Advisory Board,' ' which can be found on the SAB's Web site at: <http://www.epa.gov/sab/pdf/ec02010.pdf>. Those selected to serve on the Panel will review the draft materials identified in this notice and respond to the charge questions provided below.

Background

Water Quality Standards: States, and Tribes with authorization to conduct a water quality standards program, are required by section 303(c) of the Clean Water Act (CWA) to adopt water quality standards. Such water quality standards must protect public health and welfare, protect designated uses, enhance the quality of water and serve the purposes of the CWA. Water quality standards consist of a designated use(s) for a water body, water quality criteria to protect the designated use(s), and an antidegradation policy. Section 101(a) of the CWA specifies that water quality standards should provide, wherever attainable, ``water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water.' ' Section 303(c) states that water quality standards should be established for water bodies taking into consideration their use and value for public water supplies; propagation of fish and wildlife, recreational, agricultural, industrial, navigation, and other purposes.

EPA, under section 304(a) of the CWA periodically publishes water quality criteria guidance for use by States and Tribes in setting water quality standards. This guidance typically contains recommended water quality criteria values or criteria development methodologies. Water quality criteria are levels of individual pollutants or water quality characteristics, or descriptions of conditions of a water body that, if met, will generally protect the designated use(s). Water quality criteria published pursuant to section 304(a) of the CWA are based solely on data and scientific judgements on the relationship between pollutant concentrations and environmental and human health effects and do not reflect consideration of economic impacts or the technological

feasibility of meeting the chemical concentrations in ambient water.

States and Tribes may adopt EPA's recommended criteria into their water quality standards or they may adopt water quality criteria modified to reflect site-specific conditions, or criteria derived using other scientifically defensible methods. These criteria recommendations have been critical tools for the States, Tribes, and EPA to control most forms of pollution and improve water quality across the Nation.

Within recent years, however, the States and EPA have identified new issues that are causing significant water quality problems for which water quality criteria have yet to be published or updated. One such concern is the imbalance of suspended solids and bedded sediments (SABS) in water bodies. In many water bodies, SABS are severely out of balance due to human activities within the watershed. In most cases the problem is excessive sediments, but in some cases the problem is too little sediment.

Suspended and Bedded Sediments (SABS): Suspended and bedded sediments are defined by EPA as particulate organic and inorganic matter that suspend in or are carried by the water, and/or accumulate in a loose, unconsolidated form on the bottom of natural water bodies. This includes clean sediment, suspended sediment concentration (SSC), total suspended solids (TSS), bedload, turbidity, or in more common terms, dirt, soils or eroded materials.

In excessive amounts, SABS constitute a major ecosystem stressor. According to the National Water Quality Inventory--2000 Report, excessive sediment was the leading cause of impairment of the Nation's waters. The highest frequency of impairment was reported for rivers and streams, followed by lakes, reservoirs, ponds, and estuaries.

SABS can impair surface water designated uses in various ways. Excessive sediment deposits can severely impact aquatic-life uses by choking spawning gravels, depleting food sources for fish, filling rearing pools, and reducing beneficial habitat structure in stream channels. Sediments can impair aesthetic uses and can cause taste, odor, and other problems in drinking water supplies. Excessive sediment can block water-supply intakes and disturb treatment systems. Excessive turbidity can make swimming and other recreational uses of waters dangerous or undesirable. Turbidity can also block light transmission to the subsurface and disrupt the growth of submerged aquatic vegetation. Insufficient sediment supply can cause impairments to aquatic life uses by resulting in stream channel scour and destruction of habitat.

SABS present a water-quality problem different from that of manmade toxic compounds and similar to that of nutrients, as they naturally occur in water bodies, and in natural or background amounts, they are essential to the ecological function of a water body. These functions include transporting nutrients and replenishing sediment bedloads that create valuable micro-habitats, such as pools and sand bars. Thus, a basic premise for managing suspended and bedded sediments in water bodies to protect aquatic-life uses may be the need to maintain natural levels of SABS in water bodies.

There are also other types of designated uses of water bodies, other than aquatic life, which need to be protected from SABS. These include recreation in and on the water, shipping, drinking water sources, industrial water use and agricultural water use. The premise that SABS levels should be maintained at natural levels may not necessarily be valid for these types of uses. However, water bodies may have multiple use designations including aquatic life as well as those other uses listed above.

Water Quality Criteria for SABS: In 1976, EPA issued a water quality criteria recommendation for solids and turbidity that uses a 10% reduction of the depth of the compensation point for photosynthetic activity. For a variety of reasons, this criterion is seldom, if ever, used by the States. It is questionable whether this criterion would achieve intended protection for all different designated uses for water bodies.

[[Page 44760]]

Although most States currently have water quality criteria that can be applied to manage SABS, these are typically based on turbidity, suspended solids or settleable solids, and their effectiveness for dealing with all water quality impairments caused by SABS, especially as benchmarks for aquatic life protection based on natural levels, is questionable. In recent consultation with State representatives, the need for new water quality criteria for SABS or methodologies for deriving them on a site-specific basis was identified as one of the highest priorities for the water quality criteria program. As a result, the EPA Office of Water has concluded that to better manage SABS in all types of water bodies and for all designated uses, State and Tribal water quality managers need new and updated water quality criteria and information for SABS.

The potential approaches for criteria development that EPA's Office of Water is considering investigating in the Strategy for Developing Water Quality Criteria for Suspended and Bedded Sediments (SABS) include the following:

- (1) State-by-State Reference Condition Criteria Derivation Approach;
- (2) Conditional Probability Approach to Establishing Thresholds;
- (3) Toxicological Dose-Response Approach;
- (4) Relative Bed Stability and Sedimentation Approach;
- (5) Rosgen Geomorphological Approach;
- (6) Water Body Use Functional Approach; and
- (7) Combinations of above approaches.

General information about water-quality criteria and water-quality standards can be found on the World Wide Web at <http://www.epa.gov/waterscience/standards/>. Information of obtaining a copy of the draft Strategy for Developing Water Quality Criteria for Suspended and Bedded Sediments will be provided at the time the formal meeting announcement is made for this consultation in September, or will be posted on the SAB Web site once the draft is provided to the SAB, whichever is earlier.

Proposed Charge to the Panel: While many questions and much research remain, EPA seeks the opportunity for a consultation with the Science Advisory Board to gain advice and recommendations on the best potential approaches to developing water quality criteria for suspended and bedded sediments as will be described in a draft Strategy for Developing Water Quality Criteria for Suspended and Bedded Sediments (SABS) to be prepared by the Office of Water. The Office of Water is also seeking recommendations on additional criteria development approaches for uses of water bodies other than aquatic life, and it is also seeking advice on any potential criteria derivation methodology not included in the Strategy.

SAB Request for Nominations: The EPA SAB is requesting nominations of individuals who are recognized, national-level experts in one or more of the following disciplines to supplement the expertise of the

EPEC for this consultation: (a) Fluvial hydrogeomorphology; (b) fluvial habitat dynamics; (c) sediment and turbidity monitoring; and (d) fisheries biology.

Process and Deadline for Submitting Nominations: Any interested person or organization may nominate qualified individuals to add expertise in the above areas for the panel for the consultation on the water quality strategy for suspended and bedded sediments.

Anyone who is unable to submit nominations in electronic format may contact Dr. L. Joseph Bachman at the mailing address given earlier in this notice under the heading FOR FURTHER INFORMATION CONTACT. Nominations should be submitted before August 20, 2003. Any questions concerning either this process or any other aspects of this notice should be directed to Dr. Bachman.

The EPA Science Advisory Board Staff Office will acknowledge receipt of nominations and inform nominators of the panel selected. From the nominees identified by respondents to this Federal Register notice (termed the ``Widecast''), SAB Staff will develop a smaller subset (known as the ``Short List'') for more detailed consideration. Criteria used by the SAB Staff in developing this Short List are given at the end of the following paragraph. The Short List will be posted on the SAB Web site at <http://www.epa.gov/sab>, and will include, for each candidate, the nominee's name and their biosketch. Public comments will be accepted for 21 calendar days on the Short List. During this comment period, the public will be requested to provide information, analysis or other documentation on nominees that the SAB Staff should consider in evaluating candidates for the specific expertise to add to the panel for the consultation on the water quality strategy for suspended and bedded sediments.

For the EPA SAB, a balanced panel (i.e., committee, subcommittee, or panel) is characterized by inclusion of candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the charge. Public responses to the Short List candidates will be considered in the selection of the panel, along with information provided by candidates and information gathered by EPA SAB Staff Office independently on the background of each candidate (e.g., financial disclosure information and computer searches to evaluate a nominee's prior involvement with the topic under review). Specific criteria to be used in evaluating an individual subcommittee or panel member include: (a) Scientific and/or technical expertise, knowledge, and experience (primary factors); (b) scientific credibility and impartiality; (c) availability and willingness to serve; (b) absence of financial conflicts of interest; and (e) ability to work constructively and effectively in committees.

Short List candidates will also be required to fill-out the ``Confidential Financial Disclosure Form for Special Government Employees Serving on Federal Advisory Committees at the U.S. Environmental Protection Agency'' (EPA Form 3110-48). This confidential form, which is submitted by EPA SAB Members and Consultants, allows Government officials to determine whether there is a statutory conflict between that person's public responsibilities (which includes membership on an EPA Federal advisory committee) and private interests and activities, or the appearance of a lack of impartiality, as defined by Federal regulation. The form may be viewed and downloaded from the following URL address: <http://www.epa.gov/sab/pdf/epaform3110-48.pdf>. Panel members will be asked to attend one public meeting in late

September or early October, 2003 in addition to reviewing background material and a proposed strategy document provided by EPA.

Dated: July 22, 2003.

Vanessa T. Vu,
Director, EPA Science Advisory Board Staff Office.
[FR Doc. 03-19276 Filed 7-29-03; 8:45 am]